



## Policy 23

### LIST OF STUDIED STREAMS

A list of studied streams is desirable for the purpose of easily identifying creeks, streams and rivers with computed floodway and floodplain information. This information is necessary to determine minimum floor elevations, no-fill lines (Policy 21), stream buffer zones (Policy 22), and other information for site development projects in the vicinity of a studied stream. Minimum floor elevations for new buildings and structures are required to be at least 1 foot above the computed 500-year water surface elevation according to Section 12-52(5) of the Knoxville Flood Damage Prevention and Control Ordinance (see Appendix B).

#### Table 23-1

This table shows every studied creek and stream for which any portion falls within the Knoxville city limits. The maximum extent of the studied flood profile is listed without regard to the city limits. Stream mile 0.00 indicates the mouth of the creek or stream, so that the miles then measure the upstream distance. A physical description of the upstream limit is given in Table 23-1. In addition, each creek or stream which mostly falls outside the city limits is denoted by \*\*.

The sources of information for each stream are “checked” in the appropriate boxes. The most recent information shall generally be used to determine floodplain and floodway widths, computed water surface elevations, and other hydraulic parameters. In some cases, the most recent information is TVA unpublished studies, which can be viewed during normal business hours at the Engineering Department offices located on the 4<sup>th</sup> Floor of the City County Building. Call the Engineering Department at 215-2148 for assistance in determining whether individual properties are in a floodplain, flood zone, etc.

These information sources can be viewed at the Engineering Department offices (located on the 4<sup>th</sup> Floor of the City County Building). FEMA Flood Insurance Studies and maps can be viewed and purchased inexpensively online at the FEMA Map Service Center website.

- #1 - The Flood Insurance Study for Knox County (FEMA Community 475433), published November 1982, and the associated Flood Insurance Rate Maps (FIRMs), last updated in May 1983.
- #2 - The Flood Insurance Study for the City of Knoxville (FEMA Community 475434), last updated January 1991, and the associated Flood Insurance Rate Maps (FIRMs), last updated in January 1991.
- #3 - Knox County reports for Beaver Creek Watershed (February 2000) and for Ten Mile Creek Watershed (February 2000), prepared by Ogden Environment and Energy Services (now called AMEC).
- #4 - TVA flood restudy and remapping efforts (not yet published, draft version January 2003), prepared by TVA for the purpose of revising the official Flood Insurance Study for the City of Knoxville and Knox County. FEMA is analyzing TVA results in a formal review.

The Engineering Department has HEC-2 and HEC-RAS computer models that provide the specific flood profiles, cross sections, and modeling assumptions for each of these reports. The City of Knoxville Engineering Department reserves the right to refer to the underlying computer model to specifically interpret the published flood profiles and maps.

| <b>Table 23-1</b><br><br><b>STREAM<br/>NAME</b> | <b><u>Maximum Extent<br/>for Studied Flood<br/>Profile of the<br/>particular stream</u></b><br><br>(whether within City<br>of Knoxville limits<br>or outside)<br><br>(Stream miles) | <b><u>Physical Description of the<br/>Upper Limit for Studied<br/>Flood Profile</u></b><br><br>(whether within City of Knoxville<br>limits or outside)<br><br>(-----) | <b>#1</b><br>(1983)                                      | <b>#2</b><br>(1991)  | <b>#3</b><br>(2001)  | <b>#4</b><br>(2003)  |
|---|---|---|--|--|--|--|
|   |   |   | <u>Flood Insurance Study</u><br><u>Knox County (FIS)</u> | <u>Flood Insurance Study</u><br><u>City of Knoxville (FIS)</u> | <u>Knox County Reports f</u><br><u>Beaver Creek &amp; Ten Mi</u> | <u>TVA Restudy (for event</u><br><u>inclusion into official FIS)</u> |
| Beaver Creek **                                 | 0.00 to 44.33   | Border with Union County  | ✓  |  | ✓  |  |
| First Creek                                     | 0.00 to 7.13  | Knox Road bridge  |  | ✓  |  | ✓  |
| First Creek – Trib #1                           | 0.00 to 0.76  | Montrose Road bridge  |  |  |  | ✓  |
| First Creek – Trib #2                           | 0.00 to 0.46  | Bend along Parkway Drive  |  |  |  | ✓  |
| Fourth Creek                                    | 0.00 to 3.84  | Above Middlebrook Pike  | ✓  | ✓  |  | ✓  |
| Fourth Creek – Trib #1                          | 0.00 to 2.14  | 2 <sup>nd</sup> x-ing with Lawford Road   |  | ✓  |  | ✓  |
| Fourth Creek – Trib #2                          | 0.00 to 1.17  | Wellington Drive  |  | ✓  |  |  |
| Fourth Creek – Trib #3                          | 0.00 to 0.81  | Kinzalow Dr (near Stockton)   |  | ✓  |  | ✓  |
| French Broad River **                           | 0.00 to 19.20   | Border with Sevier County   | ✓  |  |  | ✓  |
| Goose Creek                                     | 0.00 to 1.20  | Candora Road  |  | ✓  |  |  |
| Goose Creek – Trib #1                           | 0.00 to 0.24  | Bikepath bridge   |  | ✓  |  |  |
| Grassy Creek **                                 | 0.00 to 2.17  | Municipal Golf Course   | ✓  |  | ✓  |  |
| Hines Branch **                                 | 0.00 to 2.22  | Mynatt Road   |  |  | ✓  |  |
| Holston River **                                | 0.00 to 23.10   | Border with Grainger County   | ✓  | ✓  |  |  |
| Knob Fork **                                    | 0.00 to 4.20  | Dry Gap Pike  | ✓  |  | ✓  |  |
| Love Creek                                      | 0.00 to 4.32  | Mill Road & Southern RR   | ✓  | ✓  |  |  |
| Love Creek – Tributary                          | 0.00 to 0.88  | Carta Road  |  |  |  | ✓  |
| Murphy Creek **                                 | 0.00 to 1.13  | Murphy Road   | ✓  |  |  |  |
| Second Creek                                    | 0.00 to 5.83  | Charlene Lane near I-75   |  | ✓  |  |  |
| Sinking Creek **                                | 0.00 to 1.88  | Middlebrook Pike  | ✓  |  | ✓  |  |
| Stock Creek **                                  | 2.47 to 6.17  | McCammon Road   | ✓  |  |  | ✓  |
| Swanpond Creek **                               | 0.00 to 6.06  | Huckleberry Springs Road  | ✓  |  |  |  |
| Ten Mile Creek **                               | 0.00 to 5.64  | East of Robinson Road   | ✓  | ✓  | ✓  |  |
| Ten Mile Creek – Trib #1                        | 0.00 to 1.07  | Corteland Drive   | ✓  | ✓  | ✓  |  |
| Ten Mile Creek – Trib #2                        | 0.00 to 0.44  | Echo Valley Road  | ✓  |  | ✓  |  |
| Tennessee River **                              | 610.4 to 652.0  | Splits into two rivers at 652.0   | ✓  |  |  | ✓  |
| Third Creek                                     | 0.00 to 7.97  | Vienna Dr and Mondale Rd  |  | ✓  |  |  |
| Third Creek – East Fork                         | 0.00 to 1.77  | Tennessee Avenue  |  | ✓  |  |  |
| Turkey Creek **                                 | 0.00 to 6.20  | Simmons Road  | ✓  |  |  | ✓  |
| Turkey Creek – Trib #1                          | 0.00 to 0.30  | Gilbert Drive   | ✓  |  |  | ✓  |
| Whites Creek **                                 | 0.00 to 3.24  | McC Campbell Road   | ✓  | ✓  |  | ✓  |
| Williams Creek                                  | 0.00 to 2.04  | Wilson Avenue   |  |  |  | ✓  |

\*\* -- Most of this studied stream is outside of the Knoxville city limits.

The Water Quality Forum website (<http://www.waterqualityforum.org/>) has a very useful tool – an interactive mapping page to determine the locations and watershed boundaries for various Knox County creeks and streams. The information available at this website will increase gradually, with the intended goal of providing floodplains, water surface profiles and other highly technical information in a user-friendly format.

Table 23-2

This table lists the various tributaries and their approximate locations. Since tributaries are not usually labeled on street maps or county maps, this table helps to identify studied streams for which a floodway profile has been computed. Tributaries were originally numbered for the Flood Insurance Studies, but are not numbered on the USGS 7.5-minute quadrangle maps.

| <b><u>Table 23-2</u></b> |  |   |
|--------------------------|--|---|
| <b>Tributary Name</b>    | <b><u>Maximum Extent<br/>for Studied<br/>Profile</u></b><br>(Stream miles) | <b><u>Street Crossings</u></b><br>(from downstream to upstream) |
| First Creek – Trib #1    | 0.00 to 0.76   | Rockcrest Road, Montrose Road (between Maple & Fair Dr)         |
| First Creek – Trib #2    | 0.00 to 0.46   | Meadow Road (north of Fair Drive)                               |
| Fourth Creek – Trib #1   | 0.00 to 2.14   | Westland Drive, Lawford Road (twice)                            |
| Fourth Creek – Trib #2   | 0.00 to 1.17   | Westfield Road, Kinston Pike, Wellington Drive                  |
| Fourth Creek – Trib #3   | 0.00 to 0.81   | Wesley Road, Picadilly Road, driveways along Kinzalow Dr        |
| Goose Creek – Tributary  | 0.00 to 0.24   | Maryville Pike, footbridge, bikepath bridge, Chappell Road      |
| Love Creek – Tributary   | 0.00 to 0.88   | Tulane Road, S. Chilhowee Drive, Chilhowee Court                |
| Ten Mile Creek – Trib #1 | 0.00 to 1.07   | Walker Springs Road, Corteland Drive                            |
| Ten Mile Creek – Trib #2 | 0.00 to 0.44   | Ebenezer Road, Echo Valley Road                                 |
| Turkey Creek – Trib #1   | 0.00 to 0.30   | Outlet Drive, Gilbert Drive                                     |

**Assistance**

Please call the Engineering Department at 215-2148 for assistance in determining whether individual properties are in a floodplain or flood zone, computing minimum finished floor elevations, whether flood insurance is required, etc. The Engineering Department can answer floodplain questions; however, questions of a technical nature need to be researched. Immediate answers are not always available if Engineering Department personnel have to check maps, plans, profiles, or cross sections to fully answer a question.

The Engineering Director serves as the floodplain administrator according to Section 12-31 of the Flood Damage Prevention and Control Ordinance, with substantial responsibility to protect the public welfare and satisfy FEMA requirements. The Engineering Director's responsibilities are listed in Section 12-32.

|                   |                                |                |
|-------------------|--------------------------------|----------------|
| Common FEMA       | FEMA Map Service Center        | 1-800-358-9616 |
| telephone numbers | Flood insurance questions      | 1-888-FLOOD29  |
|                   | FEMA map technical specialists | 1-877-FEMA-MAP |